BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Drilling of bore wells erecting of pump set, Laying of Pipe Line and Construction of Water Tank(GLR)in ward No-05.

Job code:005-20-000115

Esimation cost, in Lakhs **100.00**

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	Earthwork excavation by manual means for foundations, either in pits or trenches 1.5m and above in width, in soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches , stacking the excavated soil clear from edges from edges of excavation with lead upto 50m, including breaking of clods complete as per specification in hard soil .KSRB 2-3								
	(Page No. 6, Item No. - 2.3 of PW;P&IWTD S.R 2018-19)								
	Footing	2.00	1	3.60	16.55	2.05	244.28		
	Foundation	1.00	1	17.55	9.10	5.95	950.24		
						Total Qty	**1,194.52**	**322.92**	**3,85,735.00**
	Rate Analysis	Cum							
	Basic Rate	**299.00**							
	Area Weightage	**0.08**							
	Total Qty	**322.92**							
2	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. specification. No. KBS								
	(Page No. 7, Item No. - 2.15 of PW;P&IWTD S.R 2018-19)								
	Foundation	1	1	17.55	9.10	0.60	95.82		
						Total Qty	**95.82**	**2,623.32**	**2,51,374.00**
	Rate Analysis	Cum							
	Basic Rate	**2,429.00**							
	Area Weightage	**0.08**							
	Total Qty	**2,623.32**							
3	KSRB 2.6 : Providing and **filling sand in foundation** to required depth for sub soil treatment including watering ramming with all lead and lift complete as per specifications. specification. No. KBS 2.10.2. (P.No.7, I.No.2.13 of PW,P&IWTD SR 2018-19)								
	(Page No. 7, Item No. - 2.15 of PW;P&IWTD S.R 2018-19)								
	Foundation Sand Filling	1	1	17.55	9.10	0.30	47.91		
						Total Qty	**47.91**	**2,224.80**	**1,06,594.00**
	Rate Analysis	Cum							
	Basic Rate	**2,060.00**							
	Area Weightage	**0.08**							
	Total Qty	**2,224.80**							
4	Providing and injecting chemical emulsion for Pre- constructional Anti-Termite Treatment creating continuous chemical barrier under and around the column pits, walls, trenches, basement excavation, top surface of the plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, Surrounding of pipes and conduits, with chloropyriphos emulsifiable concentrates of 20% concentration at 3.19 Litre/sqm., including cost of chemical, diluting in water to one percent concentration, labour, HOM complete as per specifications. (Plinth area of the building at ground floor only shall be measured) Specification No. KBS : 3.2.6 / 3.2.7								

	(Page No. 10, Item No. - 3.2 of PW;P&IWTD S.R 2018-19)								
	Builtup Area								
	Foundation	1	1	17.55	9.10		159.71		
					Total Qty		**159.71**	**114.48**	**18,283.0**
	Rate Analysis	Sqm							
	Basic Rate	**106.00**							
	Area Weightage	**0.08**							
	Total Qty	**114.48**							
5	Providing and laying in position plain cement concrete of mix 1:4:8 with OPC @ 180 kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85 cum and fine aggregates @ 0.57 cum machine mixed, machine mixed, concrete laid in layers not exceeding 15cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1.4.2								
	(Page No. 13, Item No. - 4.3 of PW;P&IWTD S.R 2018-19)								
	Bed Concrete								
	Foundation	1	1	16.95	8.50	0.45	64.83		
	Total Qty PCC						**64.83**	**5,510.16**	**3,57,244.00**
	Rate Analysis	Cum							
	Basic Rate	**5,102.00**							
	Area Weightage	**0.08**							
	Total Qty	**5,510.16**							
6	Providing and laying **Ready mixed Cement concrete M-35** using 20mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete for RCC works laid in 15 cm thick layers and well compacted including vibrating curing etc., for all super structure works with all lead and lift etc., complete. (exculsive of cost of steel and fabrication charges)								
	(P.No.19, I.No.4.49.4 of PW, P&IWTD SR2018-19)								
	GLR Tank								
	Footing Raft	2	1	2.40	15.35	0.40	29.47		
	Stab Beam	2	1	2.40	0.60	0.50	1.44		
	GLR Tank Bottam Raft								
	Bottam Raft	1	1	16.35	7.90	0.60	77.50		
	GLR Tank Column								
	Column Upto Top Slab	2	5	0.60	0.45	4.00	10.80		
	GLR Tank wall								
	Long wall (avg of .60+.45)	1	2	16.35	0.53	4.00	69.32		
	Short Wall	1	1	7.00	0.45	4.00	12.60		
	Short Wall	1	2	7.00	0.53	4.00	29.68		
	GLR Tank Top Slab and Beam								
	Top Slab	1	1	16.35	7.90	0.45	58.12		
	Top Slab Beam	1	5	7.00	0.30	0.60	6.30		
	Deduction of Inspection Covers								
		1	-6	0.60	0.45	0.60	-0.97		
	Rate Analysis	Cum					**294.27**	**6,268.32**	**18,44,561.00**
	Basic Rate	**5,804.00**							
	Area Weightage	**0.08**							
	Total Qty	**6,268.32**							

7	KSRB 4.2.8: Providing and laying in position reinforced cement concrete of design Mix M20 with OPC @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @ 0.46cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintels, and beams retaining walls, return walls, walls (any thickness) including attached pilasters, columns,pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6								
	(P.No.14, I.No.4.13 of PW, P&IWTD SR2018-19)								
	Operating Room/Store Room								
	Columns	1	4	0.30	0.45	4.00	2.16		
	Roof Beam	1	4	7.00	0.30	0.60	5.04		
	Roof Slab	1	1	7.00	7.00	0.15	7.35		
	Haunchings								
	Long Side	0.50	2	16.35	0.60	0.60	5.89		
	Short Side	0.50	4	7.00	0.60	0.60	5.04		
							25.48	**6,363.36**	**1,62,113.00**
	Rate Analysis	Cum							
	Basic Rate	**5,892.00**							
	Area Weightage	**0.08**							
	Total Qty	**6,363.36**							
8	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2								
	(P.No.15, I.No.4.28 of PW, P&IWTD SR2018-19)								
	GLR Tank								
	Footing Raft	2	1	35.50		0.40	28.40		
	Stab Beam	2	1	6.00		0.50	6.00		
	GLR Tank Bottam Raft								
	Bottam Raft	1	1	48.50		0.60	29.10		
	GLR Tank wall								
	Long wall (avg of .60+.45)	1	4	16.35		4.00	261.60		
	Short Wall	1	2	7.00		4.00	56.00		
	Short Wall	1	4	7.00		4.00	112.00		
							493.10	**278.64**	**1,37,397.00**
	Rate Analysis	Sqm							
	Basic Rate	**258.00**							
	Area Weightage	**0.08**							
	Total Qty	**278.64**							
9	KSRB 4-6.5 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for columns, pillars, post and struts, square / rectangular/ polygon in plan including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2								
	(P.No.16, I.No.4.32 of PW, P&IWTD SR2018-19)								
	GLR Tank Column								
	Column Upto Top Slab	2	5	2.10		4.00	84.00		
	Operating Room/Store Room								
	Columns	1	4	1.50		4.00	24.00		
							108.00	**492.48**	**53,188.00**
	Rate Analysis	Sq-m							
	Basic Rate	**456.00**							
	Area Weightage	**0.08**							
	Total Qty	**492.48**							

13	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500								
	(P.No.19, I.No.4.46.1 & 4.47 of PW, P&IWTD SR 2018-19)								
				Mtonne					
	GLR Tank					kg/cum			
	Footing Raft	1	1	30.91		130.00	4,018.56		
	Bottam Raft	1	1	77.50		130.00	10,074.87		
	Column	1	1	10.80		130.00	1,404.00		
	Wall Concrete	1	1	99.00		120.00	11,880.48		
	Top Slab	1	1	58.12		120.00	6,974.91		
	Top Slab Beam	1	1	6.30		135.00	850.50		
	Haunchings	1	1	10.93		90.00	983.34		
	Operating Room/Store Room								
	Columns	1	1	2.16		150.00	324.00		
	Roof Beam	1	1	5.04		120.00	604.80		
	Roof Slab	1	1	7.35		100.00	735.00		
							37,850.46		
	Total Qty Rebar Steel Quantity						**37.85**	**76,643.28**	**29,00,983.00**
	Rate Analysis	**Tonne**							
	Basic Rate	**70,966.00**							
	Area Weightage	**0.08**							
	Total Qty	**76,643.28**							
14	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. Including cost of all labour complete as per specifications. No. KBS 2.9								
	(Page No. 7, Item No. - 2.10 of PW;P&IWTD S.R 2018-19)								
	Side Filling								
		1	1	48.5	0.60	3.00	87.30		
						Total Qty	**87.30**	**217.08**	**18,951.00**
	Rate Analysis	Cum							
	Basic Rate	**201.00**							
	Area Weightage	**0.08**							
	Total Qty	**217.08**							
15	Providing 18mm thick cement plaster in single coat with cement mortar to brick masonry incluing rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Cement Mortar 1:4.KSRB 6-6.3. **Cement Morter 1:4**								
	(Page No. 116 , Item No. - 15.16 of PW;P&IWTD S.R 2018-19)								
	Exernal Platesring								
	Walls	1	4	7.00		3.00	84.00		
	Deductions								
	Door	1	-2	1.20		2.10	-5.04		
	Ventilater	1	-4	1.00		0.60	-2.40		
	Parapet wall								
		2	4	7.00		0.90	50.40		
	Total Qty						**126.96**	**281.88**	**35,787.00**
	Rate Analysis	Sqm							
	Basic Rate	**261.00**							
	Area Weightage	**0.08**							
	Total Qty	**281.88**							

16	KSRB 15-3.14: Providing 12mm thick cement plaster in single coat with cement mortar 1:4 (with lime rendering) to ceiling inclunding & rounded off corners wherever required smooth rendering Providing & removing scaffolding, including cost of materials, labour curing complete as per specification								
	(P.No.116 I.No.15.22 , 15.33 of PW, P&IWTD SR 2018-19)								
	Ceiling Plastering								
	Roof Slab	1	1	7.00	7.00		49.00		
	Total Qty						**49.00**	**243.00**	**11,907.00**
	Rate Analysis	Sqm							
	Basic Rate	**225.00**							
	Area Weightage	**0.08**							
	Total Qty	**243.00**							
17	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications.								
	(P.No.118, I.No.15.53.2 of PW, P&IWTD SR2018-19)								
	Qty Same as External Plastering						126.96		
	Total Qty						**126.96**	**110.16**	**13,986.00**
	Rate Analysis	Sqm							
	Basic Rate	**102.00**							
	Area Weightage	**0.08**							
	Total Qty	**110.16**							
18	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @ 0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification								
	(P.No.69 I.No.10.5.1 of PW, P&IWTD SR 2018-19)								
	Roof Slab	1	1	7.00	7.00		49.00		
	GLR Tank								
	GLR Tank Bottam Raft								
	Bottam Raft	1	1	16.35	7.90		129.17		
	GLR Tank wall								
	Long wall (avg of .60+.45)	1	2	16.35		4.00	130.80		
	Short Wall	1	3	7.00		4.00	84.00		
	GLR Tank Top Slab and Beam								
	Top Slab	1	1	16.35	7.90		129.17		
						Total Qty	**522.13**	**568.08**	**2,96,612.00**
	Rate Analysis(Issue Rate)	Sqm							
	Basic Rate	**526.00**							
	Area Weightage	**0.08**							
	Total Qty	**568.08**							
19	KSRB 9.4-3 : Providing Mathi / Nandi wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, HOM of machineries complete as per specifications. Specification No. KBS 9.33								
	(P.No.53, I.No.9.12 of PW, P&IWTD SR 2018-19)								
	Door	1	2	6.60	0.10	0.10	0.13		
						Total Qty	**0.13**	**68,479.56**	**9,039.00**
	Rate Analysis(Issue Rate)	Sqm							
	Basic Rate	**63,407.00**							

	Area Weightage	0.08							
	Total Qty	68,479.56							
20	KSRB 9.5-3 : Providing and fixing in position fully panelled Mathi/Nandi wood shutters for doors, styles and rails of 40mm. thick with bottom and lock rails 180mm wide top rail and styles 100mm wide as per drawing and panels of 25mm thick including cost of materials, labour, HOM of machineries complete as per specifications. (excluding cost of fixtures) Specification No. KBS 9.34								
	(P.No.53, I.No.9.16 of PW, P&IWTD SR 2018-19)								
	Door	1	2	1.20	2.10		5.04		
						Total Qty	**5.04**	**4,510.08**	**22,731.00**
	Rate Analysis	Sqm							
	Basic Rate	**4,176.00**							
	Area Weightage	**0.08**							
	Total Qty	**4,510.08**							
21	KSRB 9-27.1 : Fixing of door frame in an existing opening including embeeding frame in floor and walls after cutting masonry for holdfasts for embedding holdfast in cement concrete 1:3:6 of 20mm and down size granite metal painting two coats of coal tar to sides of frame, making good the damages to walls and floor as required and disposal of the debries with lead upto 50 m. including cost of materials, labour charges, complete as per specifications. Fixing of Door Frame								
	(P.No.60, I.No.9.80 of PW, P&IWTD SR 2019-20)								
	Door	1.00	2				2.00		
						Total Qty	**2.00**	**1,475.28**	**2,951.00**
	Rate Analysis	Sqm							
	Basic Rate	**1,366.00**							
	Area Weightage	**0.08**							
	Total Qty	**1,475.28**							
22	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer. cost of materials, fixtures, labour and HOM of machinery complete as per specifications. Specification No. KBS 7.12.								
	(P.No. 32, I.No. 7.9 of PWD SR 2015-16)								
	Grill Work For Ventilation								
	Ventilater	1	**4**	**1.00**		**0.60**	2.40		
	21 kg/ Sqm						2.40		
	Total Qty						**50.40**	**102.60**	**5,171.00**
	Rate Analysis	**Sqm**							
	Basic Rate	**95.00**							
	Area Weightage	**0.08**							
	Total Qty	**102.60**							
	ELECTRICAL WORK								
23	Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using copper PVC insulated multi strand2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. (5/2.1) I. Point wiring using class A Materials a) Short point up to 3Mtr from tapping point to out let via switch GROUP A								
		Each	1	50.00			50.00	174.00	**8,700.00**
24	Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using copper PVC insulated multi strand2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. (5/2.1) I. Point wiring using class A Materials b) Medium point above 3Mtr up to 6Mtr from tapping point to out let via switch GROUP A								
		Each	1	10.00			10.00	245.00	**2,450.00**

25	Supplying and mounting 2 Nos. of 2 way 6 amps flush type switches either surface/flush mounted on existing gang box or in 4mm thick plastic sheet and mounted on a flush mounted wooden box and wiring as required.(15/3.2)								
		Each	1	5.00			5.00	171.00	**855.00**
26	Supplying 6A flush type socket and 6 amps flush type SP switch either flush mounting in a existing in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required.(15/3.1) b) 6Amps 3/5 way switch socket.								
		Each	1	2.00			90.00	150.00	**13,500.00**
27	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve , indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required.(47/6.16) 5-32Amps SPN Group 'A'								
		Each	1	1.00			1.00	418.00	**418.00**
28	Supplying of 2'x2' LED recessed liminaire with 36 Watts system wattage. Housing Shall be with pressure die cast aliminum alloy with corrosion proof resistant polyester power coated. Drive operates with voltage range from 100V to 270V 50/60Hz with short circuit, overload and mis-wiring protection. Lumen Maintenance of 70% at 70% at 500000 Hrs. injuction moulded poly carbonate diffuser for better mechanical stability, light transmission & avoid pot hole effect. Junction Temperature shall be <70 degree Celsius. Driver is on constant current driver @ 0.06A with PF >0.92 with line voltage @ 220-240V 50/60Hz, driver efficiency > 85% & THD< 15%, LED Efficiency > 130 im/W at 1W & Fixture Efficiency > 75im/w with CRI > 75 with injuction moulded polycarbonate lens with < 80mm depth. 5Years Warrenty against any manufacturing defect working under standerd electrical condition.(26/4.33.2) a)2'x2'-36Watts								
		Each	1	15.00			15.00	8,242.00	**1,23,630.00**
29	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanised, steel wire/steel tap armoured cable with PVC outer sheathing 1.1 KV class.(55/7.4) Class 'A' PVC Cable 3.5 core 25 sqmm								
		Mtrs.	1	10.00			10.00	657.00	**6,570.00**
30	Digging of trench of 0.6m deep x 0.50 mtr wide refiling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)(61/7.9)In soil (ordinary)								
		Mtrs.	1	10.00			10.00	78.00	**780.00**
	Drilling of Borewell								
31	**Geophysical investigation** of site for Sinking borewell for supplying drinking water to the habitations either through the hand pump,MWS,P.W.S.S by vertical electrical sounding by adpoting venner or Schlumberger's method,including reconnaissance survey of Geological formation. Geophysical investigation of existing ground indecundity its quality & acceptability of the users indicating the location of site,recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre inconsolidated formation for proper seating of casing pipe,depth of drilling required to cover full depth of aquifer proposed to be tapped,probable yield and other information required including transportation of instrument and accesories to work site,engaging technical personal and labour required etc.,(PRED SR 2012-13 It.9.4, P-47) (PRED SR 20-05-2019 It.13.04)								
		BW	1				**1.00**	3,768.00	**3,768.00**
32	**Sinking borewell of 165 mm** dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) (PRED SR 20-05-2019 It.13.01,)								
	0 to 50 m	Rmt	1	50.00			**50.00**	347.00	**17,350.00**
	50 to 100 m	Rmt	1	50.00			**50.00**	442.00	**22,100.00**
	100 to 150 m	Rmt	1	50.00			**50.00**	456.00	**22,800.00**
	150 to 200 m	Rmt	1	50.00			**50.00**	536.00	**26,800.00**
	200 to 250 m	Rmt	1	50.00			**50.00**	634.00	**31,700.00**
	250 to 300 m	Rmt	1	50.00			**50.00**	700.00	**35,000.00**
	300 to 350 m	Rmt	1	50.00			**50.00**	825.00	**41,250.00**
	350 to 400 m	Rmt	1	50.00			**50.00**	900.00	**45,000.00**
	400 to 450 m	Rmt	1	50.00			**50.00**	1,129.00	**56,450.00**
33	Providing and fixing **180mm dia PVC Pipe 10kg/sqcm (casing pipe)** (page no.XXXV, SL no.889, 3005) (KPWD SR 2018-19)								
	Basic rate	1,186.44							
	Contractor Profit at 10%	118.64							
	Over Head Charges at 10%	118.64							

	Sub Total	1,423.73							
	A.W @ 8%	113.90							
	Total	**1,537.63**							
		Rmt	2	25.00			**50.00**	1,537.63	**76,881.00**
34	Supply of ISI Mark **175mm** nominal Bore, Plain end **steel casing Pipe**-grade of steel Fee 4100 of wakk thickness 504mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel electric or basic oxygen process in fandom length of 5 to 7mtr. Both ends threaded confirming to Is554/1985 one end fixed with socket confirming to IS 270:2001 and other end with screwed pipes. All pipes shall be reasonably free from defectes. The tubes shall be resonably straigth should be with ISI Marking Weighting 25.10 kg/mtr (Inclusive of all taxes and durties) Prices include Collar - medium duty. (Page No.III,It no.84)PRED SR 2012-13.								
		Rmt	1	30.00			**30.00**	1,325.00	**39,750.00**
35	Providing **175mm dia Bore Cap** CE (M) (P.No.iii,I.No.85) PRED SR 2012-13								
		No	1				**1.00**	100.00	**100.00**
36	Atalanta suguna CRI **KIRLOSKAR** and other equipments **pumps** 10.00 **HP/7.5 KV (20 stage)** (Pg No. XLI. Sl.no.29) KPWD SR-2018-19								
	Basic rate	49,955.00							
	Contractor Profit at 10%	4,995.50							
	Over Head Charges at 10%	4,995.50							
	Sub Total	59,946.00							
	A.W @ 8%	4,795.68							
	Total	**64,741.68**							
		No	1				**1.00**	64,741.68	**64,742.00**
37	Providing and fixing in trenches **galvinised/mild steel tube 50mm dia nominal bore** with all fittings (earth work in trenches to be measured and paid for seperately) including cost of all materials, labour charges,HOM of equipment and testing complete as per specifications. Specification No. KBS 13.2.14/13.6 (page no.92/It no.13.15)KPWD SR 2018-19.								
	Basic rate	388.00							
	A.W @ 8%	31.04							
	Total	**419.04**							
		Rmt	1	400.00			**400.00**	419.04	**1,67,616.00**
38	Supplying and drawing **3 core flat PVC** sheathed submersible **pump cable** maufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 to IS 8130-1984 and virgin grade PVC insulation and power coating extruded PVC sheathed suitable for working voltage upto 1100 volts with specified IS 694:1990 and confirming to the attwached GTP of group A 3CX4.0 sq.mm (PWD Ele SR 2019-20,P-7/It-2.6)								
	Add 5mts for Switching	Rmt	2	405.00			**810.00**	140.00	**1,13,400.00**
39	Providing and fixing in position **50mm Nominal bore non-return valve** vertical type of approved make including cost of all materials,labour and HOM of equipment with all leads complete as per specifications.(PWD SR 18-19,P-95/It no.13.62)								
	Basic rate	1,269.00							
	A.W @ 8%	101.52							
	Total	**1,370.52**							
		No	1				**1.00**	1,370.52	**1,371.00**
40	Spplying and fixing **50mm GI Union**.(PWD SR 2016-17,P-XXXIX)								
		No	1				**1.00**	223.70	**224.00**
41	Spplying and fixing **50mm GI Elbow**.(PWD SR 2016-17,P-XXXIX)								
		No	1				**1.00**	111.80	**112.00**
42	Spplying and fixing **50mm GI Nipple**.(PWD SR 2016-17,P-XXXIX)								
		No	1				**1.00**	104.30	**104.00**
43	Spplying and fixing **50mm GI Hose colleres**(PWD SR 2016-17,P-XXXIX)								
		No	67				**67.00**	103.00	**6,901.00**

44	Supplying and fixing 20" x 20" x 2.5" polished **wood board** made of not less than 15mm thick plank on both the sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P.no.24 / I no. 5.6.6 KPWD ELE SR 2019-20								
		No	1				**1.00**	292.00	**292.00**
45	Supplying and fixing miniature circuit breakers on existing **MCB distribution board** using necessary fixing materials and 'C' type curve indicator ON/OFF energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.(PWD Ele SR 2019-20,P-47/Sl no.5.17.3) 50-63 Amps P-22								
		No	1				**1.00**	723.00	**723.00**
46	Supplying of **TPST with rewirable porcelain** channels in SM encloser made out of 14 SWG powder coated point of approved colour 32 amps (PWD Ele SR 2019-20,P-13,It-192 xiii) P - XIII								
		Each	1				**1.00**	1,080.00	**1,080.00**
47	Supplying and fixing **LED type panel board** indicating lamp with required colour suitable for 220 V AC 50 HZ 12/24 V DC(PWD Ele SR 2019-20,p-XVI,Sl no.427) P XVI								
		Each	1				**1.00**	258.00	**258.00**
48	Suppling fully automatic **star delta starter** unit push button type with suitable wires 2 conductors and adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts phase and wired after fixing to the existing wooden board for motor. upto 12.5HP(PWD Ele SR 2019 20,p-24,Sl no.-5.2.1) P								
		No	1				**1.00**	6,400.00	**6,400.00**
49	Supplying and fixing **single phase preventer** using necessary wires over an existing panel board suitable for motar up to 20 HP capacities.(PWD Ele SR 2019-20,p-XIII/Sl no.192)								
		No	1				**1.00**	447.00	**447.00**
50	**Wiring for lighting/power circuit** using one of FRLS PVC insulated 1100V grade multistrand copper conductor single core wire in open or concealed system of wiring as per IS 694:1990 & conforming to the attached GTP of group A. 4 sqmm (PWD Ele SR 2019-20,p-5,It-2.3 2.3.4 P-6								
		Mtrs	1	20.00			**20.00**	45.00	**900.00**
51	Supplying fixing and wiring **heavy duty low voltage capacitors** conforming to IS 2834 phase 400/440 volts grade, for power factor improvement of rotating machinery.(PWD Ele SR 2019-20,p-29/Sl no.5.37)								
		KVAR	4				**4.00**	400.00	**1,600.00**
52	Supplying, fixing, wiring, **earth electrode** for grounding conduits, I.C cotouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia (PWD Ele SR 2019-20,p-40,Sl no.6.1)								
		No	1				**1.00**	2,999.70	**3,000.00**
53	**Digging of trench** of 0.6mtrs deepx0.5 mtrs wide refilling the trench to the required gorund level and consolidating etc., complete (PWD Ele SR 2019-20,p-41,It-6.6.2) hard soil								
		Mtrs	1	8.00			**8.00**	102.00	**816.00**
54	Supplying laying **1.1 KV class LT UG cable** having aluminium conductor PVC insulated extruded inner shethed galvanised steel strip (excep 2cx 10 sqmm wire armoured) confirming to IS-3975:1990 (No. of strip indicated in GTP) and extruded PVC outer sheathed armoured cable with specified IS-1554,part-1:1988 and confirming to the attached GTP of group A 4 core 16 sq mm PWD Ele SR 2019-20,p-40,It-6.4.1)								
		Mtrs	1	10.00			**10.00**	95.00	**950.00**

55	**Labour charge for laying 1.1 KV class UG cable** in existing trench GI pipe / stoneware pipe/ on wall / on poles as required in existing trench/duct. 6 sq mm to 16 sq mm(PWD Ele SR 2019-20,p-41,It-6.5.1)								
		No	1	25.00			25.00	11.88	**297.00**
56	Supplying and fixing class-A(medium duty) **GI pipe wall** thickness not less then 3.25mm **on pole/wall/drain** crossing with necessary clamping arrangements for UG cable of 1.1KV class 40mm(PWD Ele SR 2019-20,p-41,It-6.9.1)								
		Rmt	1	2.00			**2.00**	335.00	**670.00**
57	Supplying and fixing **LT cast iron pot heads** suitable for 1.1KV class UG cable filled with necessary bitumen / insulating compound complete with terminals,clamps bolts and nuts and washer etc.,complete for 16 sq mm as per specifications.(PWD Ele SR (PWD Ele SR 2019-20,p-42,It-6.10.2)								
		No	1				**1.00**	270.00	**270.00**
58	Supplying and fixing **porcelain fuse channel** with cut out on the existing wooden block and wiring complete 63 amps(PWD Ele SR 2019-20,p-XIII,It-204)								
		No	3				**3.00**	136.20	**409.00**
59	**Earthwork excavation** for foundation of buildings, **water supply**, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, **in hard soil** not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5 (KPWD SR 2018-19, P-6, It-2.4)								
	Basic rate	449.00							
	A.W @ 8%	35.92							
	Total	**484.92**							
	Main line	Cum	1	300.00	0.60	0.60	108.00		
			2	25.00	0.60	0.60	18.00		
							126.00	484.92	**61,100.00**
60	KSRB13-9 : Providing and fixing to wall, ceiling and floor high density polyethylene pipes 6.00 kgf/sq.cm working pressure of outside diameter raising mains & exposed distribution pipes with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No. KBS 13.2.15.2 / 13.9 - 63mm nominal Dia pipes (KPWD SR 2018-19, P-99, It-13.73.2)								
	Basic rate	372.00							
	A.W @ 8%	29.76							
	Total	**401.76**							
	Main line	Mtr	1	300.00			300.00		
							300.00	401.76	**1,20,528.00**
61	Making connection of **G.I.distribution** branch with G.I.main of 25mm to 40mm. Nominal bore, including cutting and threading the pipes,providing and fixing Tee, nuts,labour for all item of works,testing and HOM of equipments complete as per specifications. (P.No.93/ I.No. 13.20 of KPWD SR 2018-19)								
	Basic rate	483.00							
	A.W @ 8%	38.64							
	Total	**521.64**							
		Each	2				**2.00**	521.64	**1,043.00**
62	Providing and fixing **Chorinated Poly Venyl Chloride (CPVC) pipes** conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete. (external work). - **20mm nominal** OD pipes (KPWD SR 2018-19, P-98, It-13.85.2)								
	Basic rate	157.00							
	A.W @ 8%	12.56							
	Total	**169.56**							
	Distribution line	Mtr	2	25.00			50.00		
							50.00	169.56	**8,478.00**
63	KSRB 2-4 : **Refilling available around earth pipe lines**,cables in layers mot exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. And lift upto 1.5m. Including cost of all labour complete as per specifications.(KPWD SR 2018-19, P-7, it-2.11)								

	Basic rate	121.00							
	A.W @ 8%	9.68							
	Total	**130.68**							
	Total Earth work	Cum							
	Pipe Volume	-1.00	0.7855	300.00	0.063	0.063	126.00		
		-2.00	0.7855	25.00	0.020	0.020	0.94		
	I No 64						0.02		
	I No 65						-31.50		
							-31.50		
							63.95	130.68	**8,357.00**
64	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, .2.((P.No.13, I.No.4.3 of PW,P&IWTD SR 2018-19)								
	Basic rate	**5,102.00**							
	A.W @ 8%	**408.16**							
	Total	**5,510.16**							
	Main line	Cum	1	300.00	0.60	0.15	27.00		
	Distribution line		2	25.00	0.60	0.15	4.50		
							31.50	5,510.16	**1,73,570.00**
65	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM, curing complete as per specifications.Specification No. KBS 4.1, 4.2(P.No 13, I.No.4.6 of PW,P&IWTD S.R 2018-19)								
	Basic rate	**5,422.00**							
	A.W @ 8%	**433.76**							
	Total	**5,855.76**							
	Main line	Cum	1	300.00	0.60	0.15	27.00		
	Distribution line		2	25.00	0.60	0.15	4.50		
							31.50	5,855.76	**1,84,456.00**
66	KSRB 2-4 : Providing and fixing in position **brass gate valve** with C.I.wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials,labour and HOM of equipments with all leads complete as per specifications. (P.No.94/ I.No. 13.37 of KPWD SR 2018-19)								
	Basic rate	1,739.00							
	A.W @ 8%	139.12							
	Total	**1,878.12**							
	For Main Line	Each	2						
							2.00	1,878.12	**3,756.00**
67	KSRB13-6.2-1 : Providing and fixing in position **brass stop cock** of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.2 / 13.3 (Pg No:-93/I.No:-13.26 of KPWD SR 2018-19 2018-19)								
	Basic rate	141.00							
	A.W @ 8%	11.28							
	Total	**152.28**							
		Each	1						
							1.00	152.28	**152.00**
68	Submersible Three Phase 6 inch/150mm-20HP/15kW- Stage-30 (P No. XLII, Sl No.54								
	Basic rate	74,287.00							
	10% Overhead Charges	7,428.70							
	10% Contractor Profit	7,428.70							
	A.W @ 8%	7,131.55							
	Total	**96,275.95**							
	20HP/15kW- Stage-30	Unit	4						
							4.00	96,275.95	**3,85,104.00**
69	G.I. Pipe 100 mm dia B class (P No. XIX, Sl No.500, Code No. 0147)								
	Basic rate	720.34							
	10% Overhead Charges	72.03							
	10% Contractor Profit	72.03							
	A.W @ 8%	69.15							
	Total	**933.56**							
	GLR to OHT	m	1	70.00					
							70.00	933.56	**65,349.00**

70	BESCOM deposit Charges and miscellaneous								
		No	1				**1.00**	12,000.00	**12,000.00**
71								**Total Construction Cost-A**	**88,48,236.00**
72								**12% GST on KPWD 2018-19 items-B=Ax12%**	**10,61,788.32**
73								**Total Construction Cost Including GST Charges-C=A+B**	**99,10,024.32**
74								**Add 1% for PMC including GST Charges-D=Ax1%**	**88,482.00**
75								**Sub Total-E=C+D**	**99,98,506.32**
76								**Miscellaneous and rounding off-F**	**1,493.68**
77								**Total-G=E+F**	**1,00,00,000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2018-19, PWD Ele-2019-20, and PERD SR
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer 26/5/2020

Technical Sanction
Accorded For Rs100.00 lakhs only
Head of A/C..D1878.....
CER NO :..21..... Dt:01.06.2020

TA

CE (YNK)